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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,888	09/30/2003	Jeremy Bem	Google-57 (GP-151-00-US)	9229
83,402	7590	03/19/2009	EXAMINER	
Straub & Pokotylo 788 Shrewsbury Avenue Tinton Falls, NJ 07724			NGUYEN, TRI V	
			ART UNIT	PAPER NUMBER
			1796	
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			03/19/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/674,888

Applicant(s)

BEM, JEREMY

Examiner

TRI V. NGUYEN

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-10, 12-14, 19-22, 24-26, 32-35, 37-39, 53, 54, 56-58, 63, 64, 66-68, 74, 75, 77-79 and 85 is/are rejected.
- 7) ☒ Claim(s) 15-17, 27-29, 40-42, 59-61, 69-71, 80-82 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 7-10,12-17,19-22,24-29,32-35,37-42,53,54,56-61,63,64,66-71,74,75,77-82 and 85..

DETAILED ACTION

Response to Amendment

1. In the amendment filed on 12/15/08, claims 7-10, 12-17, 19-22, 24-29, 32-35, 37-42, 53, 54, 58, 59, 63, 64, 68, 69, 74, 75 and 79 have been amended and claims 1-6, 11, 18, 23, 30, 31, 36, 43-52, 55, 62, 65, 72, 73, 76, 83, 84 and 86 have been cancelled. The currently pending claims considered below are Claims 7-10, 12-17, 19-22, 24-29, 32-35, 37-42, 53, 54, 56-61, 63, 64, 66-71, 74, 75, 77-82 and 85.
2. In view of the amendment and applicant's remarks, the 101 rejections are withdrawn; however, the 112(1) and 103(a) rejections are maintained.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7-10,12-17,19-22,24-29,32-35,37-42,53,54,56-61,63,64,66-71,74,75,77-81 and 85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 7, 19, 32, 53, 63 and 74 recite the limitation of "automatically" generating the request; however, a review of the specification does not specifically teach "automatically" generating the request as claimed.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 7-10, 12, 13, 19-22, 24, 25, 32-35, 37, 38, 53, 54, 56, 57, 63, 64, 66, 67, 74, 75, 77, 78 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorosario et al. in view of Weissman et al., McElfresh et al. and Oh (US 2003/0182274).

Claims 7, 19 and 32: Dorosario et al. discloses a computer-implemented method comprising:

a) accepting, using a computer system including at least one computer, search query information including a word (page 3, parag. 27);

b) determining, using a computer system, one or more words related to the word included in the accepted search query (page 4, parag. 41 and page 5, parag. 42-43);

c) generating, automatically using the computer system, an item request including

i) the word included in the accepted search query (page 4, parag. 41 and page 5, parag. 42-43), and

ii) the one or more words determined to be related to the word included in the accepted search query (page 4, parag. 36, 41 and page 5, parag. 42-43);

d) retrieving, using the computer system, items using the item request (page 8, parag. 66);

e) determining, using the computer system, a score for each of the retrieved items (page 3, parag. 28);

f) adjusting, using the computer system, the scores of any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query

relative to any items retrieved on the basis of the word included in the accepted search query (page 5, parag. 44);

g) serving, using the computer system, at least some of the items to a client device for rendering to a user, wherein the serving is controlled, at least in part, using the adjusted scores,

wherein the retrieved items are advertisements but does not explicitly disclose wherein the act of determining a score for each of the retrieved items uses at least one of ad performance information and ad price information.

Dorosario et al. disclose a method of delivering advertisement based on a search query however, Dorosario et al. does not explicitly disclose applicants' search architecture, determination a score for each of the retrieved items that uses at least one of ad performance information and ad price information and automatically generating the request. In an analogous art, Weissman et al. disclose appellants search architecture based on words relationships and score adjustments (col 7, lines 41-49; col 8, lines 8-22; col 9, lines 42-67; col 10, lines 42-54; col 13, lines 35-65 and Figure 3), McElfresh et al. teach that it is known to track the performance of the ads displayed and further use the performance data as factors in a statistical model in targeted advertising (col 5, lines 66 to col 6, line 14; col 8, lines 15-28 and col 11, lines 34 to 67) and Oh teach that the feature of automatic tasking in a search engine with advertising functionality (abstract and §51). It is noted that both Dorosario et al. and Weissman et al. teach a variation of the automatic tasking (Dorsario: § 44 and Weissman: col 5, lines 52-55 and col 7, lines 50-65). Since Dorosario et al. aim to increase the matching between keywords and advertisements via various parameters, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., with the particular search architecture, score adjustment feature based on ad performance information and automatic tasking as taught by Weissman et al., McElfresh et al.

and Oh respectively. One would have been motivated to modify the method to increase the efficiency in the targeting of the advertisement by incorporating an adjustment based on the prior interaction of the users with the ads and to automatically perform tasks to expedite known process parameters. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh with the adjusting being solely based on the one or more words determined to be related to the word included in the accepted search query relative to any items retrieved on the basis of the word included in the accepted search query since it was known in the art that different schemes of advertising utilizing an assortment of features are used to provide a specific scope in the targeted audience sought by the advertiser such as the criteria included in broadening and/or restricting the reach of the targeted advertisement in view of the search results. The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of a skilled artisan.

Claims 8, 20 and 33: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of 7, 19 and 32 but do not explicitly disclose wherein the act of adjusting the scores includes decreasing the scores. Weissman et al. teach ranking the results and ordering based on relevance (col 7, lines 45-49). The instant limitation of decreasing the score is seen as a design decision which is given little, if any, patentable weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh to include a step of decreasing the score. One would have been motivated to allow for the modification of the method to include a way to reflect the score being adjusted (via a numerical increase or decrease of the updated score with reference to the "un-updated" score).

Claims 9, 21 and 34: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 7, 19 and 32 but do not explicitly disclose wherein the act of adjusting the scores includes multiplying each of the scores by a multiplier that is less than one. Weissman et al. teach ranking the results and ordering based on relevance (col 7, lines 45-49). The instant limitation of adjusting the scores includes multiplying each of the scores by a multiplier that is less than one is seen as a design decision which is given little, if any, patentable weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh to include a step of adjusting the scores includes multiplying each of the scores by a multiplier that is less than one. One would have been motivated to allow for the modification of the method to include a way to reflect the score being adjusted.

Claims 10, 22 and 35: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 9, 21 and 34 but do not explicitly disclose further comprising:

h) updating, using the computer system, the multiplier using performance information. Weissman disclose the feature of updating the score. Dorosario et al. disclose a performance feature in a search engine and weighing factors (page 5, parag. 44 and page 7, parag. 63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh, with the performance feature. One would have been motivated to modify the method to expand on the semantic space criteria with an additional dimension thus

increasing the number of pertinent information to optimize the effectiveness of advertisement matching.

Claims 12, 24 and 37 Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 10, 22 and 35 disclose wherein the performance information includes ad selection information (Dorosario et al.: page 4, parag. 35; page 5, parag. 44 and page 7, parag. 63).

Claims 13, 25 and 38: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of 10, 22 and 35 disclose wherein the performance information includes ad conversion information (Dorosario et al.: page 4, parag. 35).

Claims 53, 54, 56, 57, 63, 64, 66, 67, 74, 75, 77, 78 and 85 disclose the apparatus of the method Claims 7-10, 12, 13, 19-22, 24, 25, 32-35, 37, 38 respectively; therefore, the prior arts of Dorosario et al., Weissman et al., McElfresh et al. and Oh as set forth above are relied upon to reject Claims 53, 54, 56, 57, 63, 64, 66, 67, 74, 75, 77, 78 and 85.

Claims 14, 26, 39, 58, 68 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable Dorosario et al., Weissman et al., McElfresh et al. and Oh as applied to the claims above, and further in view of Hosea et al.

Claim 14, 26 and 39: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 10, 22 and 35 respectively but do not explicitly disclose wherein the act of

updating the multiplier is performed using a function that causes the updated multiplier to converge to observed user behavior relevant to performance divided by predicted user behavior relevant to performance. In an analogous art, Hosea et al. teaches that it is known to use an adaptive profiling algorithm starting with an educated guess (the zip code of the user) and evolving as more information is available about the user (page 4, parag. 43 and 44). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al. and McElfresh et al., with the adaptive profiling feature as taught by Hosea et al. One would have been motivated to modify the method with an adaptive profiling algorithm for providing a more efficient targeted advertising strategy by incorporating pertinent information about the user thus increasing the effectiveness of ad matching.

Claims 58, 68 and 79 describe the apparatus of the method Claims 14, 26 and 39 respectively; therefore, the prior arts of : Dorosario et al., Weissman et al., McElfresh et al., Oh and Hosea et al. as set forth above are relied upon to reject Claims 58, 68 and 79.

Allowable Subject Matter

7. Claims 15-17, 27-29, 40-42, 59-61, 69-71 and 80-82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Dorosario et al., Weissman et al., McElfresh et al., Oh and Hosea et al. describe the claimed invention; however, none of the cited references teach the specific formula wherein the act of updating the multiplier is performed using the formula:

$$\text{updated_multiplier} = (\text{N} \times \text{initial_multiplier} + \text{observed_user_behavior}) / (\text{N} + \text{naively_predicted_user_behavior})$$

wherein N is a number;

and the various parameters of the formula.

Response to Arguments

8. Applicant's arguments filed 12/15/08 have been fully considered but they are not persuasive.

Regarding the 112(1) rejections, applicant argues that that Figs 4, 7, 15 and accompanying text disclose the claimed limitation of an automated method (pages 18 and 19). The examiner respectfully disagrees and notes that Fig 4 describes the overall scheme of the method, Fig 7 describes a table entry and Fig 11 describes an apparatus. Furthermore, the accompanying text does not recite the word "automatically". If the feature is inherent or obvious to a process using a computer-based system, it would then seem that any disclosure that includes a computer would meet the requirement of automatically performing a task.

Regarding claims 7, 19, 32, 53, 63 and 74, applicant argues that the cited references do not teach the feature of automatically generating an ad request that includes both (i) a word included in an accepted query and (ii) one or more words determined to be related to the word included in the accepted search query (pages 20-25). In particular, applicant argues that the Dorosario reference requires a manual step and is absent of the automated limitation (page 22 et seq.). The examiner respectfully notes that the transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > Mars Inc. v. H.J. Heinz Co., 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) ("like the term

comprising,' the terms containing' and mixture' are open-ended."). *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003); *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997). Thus the instant claims do not preclude a manual step in the process. Furthermore, it is noted that the Dorosario reference teaches the features of a parsing process to improve word association, an automated categorization process that includes word association, an adaptive process customized to the searching pattern and statistical weights to determine the targeted advertisement falling within similar pattern of interest (§ 41-44, 47-50, 54-56). The Oh reference is relied upon to teach that the automated process of in a search engine environment with advertising features is well known. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., with the particular search architecture, score adjustment feature based on ad performance information and automatic tasking as taught by Weissman et al., McElfresh et al. and Oh respectively.

Applicant argues that the Dorosario reference does not rely on the original query terms in the targeted ads selection (page 24 et seq.). The examiner respectfully disagrees and notes that the Dorosario reference teaches that the targeted advertisements are selected based on the query entry since the query entry is the starting point of the ad selection process of parsing the entry, word association and adaptive customization of the selection of the targeted advertisement (abstract, § 27-30, 39-44 and Fig 1).

Applicant argues that the cited references do not teach the feature of determining an adjusting the score of the advertisement relative to the search query terms (page 26 et seq.). The examiner respectfully disagrees and notes that the Dorosario reference teaches the feature of a mathematical model to determine the targeted advertising such as category relevancy determination based on related words and co-queries relationship (§ 41-44, 47-50, 54-56).

Furthermore, the Weissman et al. reference is relied upon to teach the score generation and adjustment applied to semantic mapping and matching based on query terms – input string and set of known meaning are given relevancy score and the advertisement is selected based on the relationships with the query term (col 7, line 35 to col 8, line 46 and col 13, lines 35 to 65).

Regarding applicant's argument that the combination is not obvious on page 29 et seq., it is noted that even if the references in the instant case do not expressly suggest the specific combination claimed by the inventor, an assertion which the examiner contests, the courts have stated "to support [a] conclusion that claimed combination is directed to obvious subject matter, references must either expressly or impliedly suggest claimed combination or examiner must present convincing line of reasoning as to why artisan would have found claimed invention to have been obvious in light of references' teachings." Ex parte Clapp, 227 USPQ 972, 973 (BdPatApp&Int 1985). Furthermore, The Courts have already established that "[h]aving established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness 'from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference.'" In re Bozek, 163 USPQ 545, 549 (CCPA 1969). In the instant case, it is noted that each of the cited reference is directed to the same field of advertisement based on query terms and that the features taught by the cited references would have been well within the purview of a skilled artisan the marketing art. In particular, it is noted that the Dorosario reference teach advertisement matching in a search engine environment and aim to achieve the most efficient targeted advertisement via various parameters such semantic matching and user's profiling. The Weissman reference is relied upon to show that score generation and adjustment are well known features for optimizing semantic mapping and matching;), the McElfresh et al. reference is relied upon to teach that it is known to track the performance of the

ads displayed and further use the performance data as factors in a statistical model in targeted advertising and the Oh reference is relied upon to teach that the feature of automatic tasking in a search engine with advertising functionality. Thus, it would be well within the purview of a skilled artisan to implement the features of score generation and adjustment of Weissman, the performance tracking of McElfresh et al. and the automated feature of OH within the environment of Dorosario's targeted advertisement for search engines to enhance the delivery of more efficient and customized advertisement. Furthermore, the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention since Weisman's, McElfresh et al.'s and Oh's features are used to optimize the matching scheme, performance reporting and the efficiency of the Dorosario method.

Applicant argues the allowance of the dependent claims based on the independent claims being allowable. The examiner directs applicant to the response to the independent claims shown above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRI V. NGUYEN whose telephone number is (571)272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119 and Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. V. N./
Examiner, Art Unit 1796
March 19, 2009

/Eric W. Stamber/
Supervisory Patent Examiner, Art Unit 3622